CRITICAL TAXONOMIC NOTES ON SOME SPECIES OF *CASSIA* LINN. FOUND IN INDIA[1]

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(*With three text-figures*)

About thirty species of *Cassia* Linn. (Caesalpiniaceae) are known to occur in India. The present paper deals with the correct identity, nomenclature, taxonomic status and descriptive notes on thirteen most confusing species of the genus. The keys for identification of closely related taxa are given along with the figures of important parts of taxonomic value and distribution of the taxa concerned.

While studying the herbarium specimens of the species of *Cassia* Linn. found in India and the literature dealing with the genus, it was noted that inspite of many recent publications on the genus *Cassia* Linn. (Ali & Quraishi 1967; Bentham 1871; Brenan 1958; Britton 1930; Chatterjee 1960; de Wit 1955; Panday 1971 and Steyaert 1950 etc.), some species of *Cassia* Linn. like *C. italica* (Mill.) Lem. ex Andrews, *C. obtusifolia* Linn. and *C. tora* Linn., *C. javanica* Linn. and *C. nodosa* Buch.-Ham. ex Roxb., *C. mimosoides* Linn. and its varieties, *C. surattensis* Burm. f. and *C. suffruticosa* Koen. ex Roth and *C. pumila* Lamk., have been mixed up in Indian herbaria and literature. Besides misidentification of several taxa and considering a quite different taxon conspecific with other related taxa, there are cases in some Indian herbaria where two specimens of same field number, identified as one species, actually belong to two different taxa. Hence, it seems worth while to publish the present note, based on detailed critical taxonomic and experimental studies on the genus *Cassia* Linn.

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1. **Cassia italica** (Mill.) Lem. ex Andrews, Fl. Pl. Anglo-Egypt. Sudan 2: 117. 1952.

Brenan (1958) recognised three subspecies under this taxon namely *italica, micrantha* and *arachioides*, and mentioned that all the Indian material belongs to subsp. *micrantha* Brenan. He has distinguished these infraspecific taxa on the basis of following characters:

Petiole 1-3.5 cm long. Racemes 6-23 cm long, longer or equal to subtending leaves. Sepals 8-13 mm long. Petals 9-20 mm long. Large anther 8-14 mm long; middle one 4-6 mm long and staminodes 1.5-2.5 mm long. Distributed in Persia, Arabia, Israel, Egypt, Ethiopia, Sudan, Nigeria, West T. Africa, North Africa and Punjab and Sind .... subsp. *italica*

Petiole 1-2.5 cm long. Racemes 2-8 cm long, smaller than subtending leaves. Sepals 5-8 mm long. Petals 8-9 mm long. Large anther 5.5-6 mm long; middle one 2.5-3.5 mm long; staminodes 1.25 mm long. Distributed in Ethiopia, British Somaliland, Uganda, Kenya, Tanganyika, Bechuanaland, S. Africa, Pakistan and India ..... subsp. *micrantha*

Petiole 0.3-1.2 cm long. Racemes 7-22 cm long, longer than subtending leaves. Sepals 8 mm long. Petals 10-12 × 5-6 mm. Large anther 8 mm long; middle one 2.5-3 mm long and staminodes 1 mm long. Distributed in S. Africa .. subsp. *arachioides*

It is evident from the diagnostic characters mentioned above that they are greatly over-

lapping and are not correlated with one another. The character, that the racemes are shorter than subtending leaves, can be taken as a base for distinguishing subsp. *micrantha* from the other two subspecies. The present study on the Indian material of *C. italica* (Mill.) Lem. ex Andrews reveals that this character also does not hold good as there are different degrees of relationship between the length of racemes and their subtending leaves. The length of flowering and fruiting racemes is much variable even in the same plant. Brenan's work indicates that he has taken the flowering racemes into consideration, while classifying these taxa. A close experimental study indicates that the length of leaves, racemes, sepals, petals and anthers etc. varies greatly in different regions of the same plant at different times. The racemes, shorter than subtending leaves in flowering state, exceed the leaves in fruiting stage or become at least as long as the leaves, if there are no biotic interferences. The Indian plants also vary in indumentum, size and shape of leaves and in general appearance. But, these variants do not show any distinct distribution and Brenan (1958) has himself admitted great variants in the size of leaves, racemes and floral parts in subsp. *italica*. About eighty per cent of the Indian material, definitely, comes under *C. italica* (Mill.) Lem. ex Andrews proper and rest twenty per cent is doubtful as the specimens have been preserved in a very young flowering stage and some are not in good condition to make comments on them. It seems appropriate to recognize the occurrence of proper species, i.e. *C. italica* (Mill.) Lem. ex Andrews in India (Fig. 1) and not subsp. *micrantha* as mentioned by Brenan (1958). Further experimental studies on the validity of Brenan's infra-specific taxa are under progress and in near future, I shall be able to throw more light on this problem.

The synonymy and distribution of the taxon is as follows:

CASSIA ITALICA (Mill.) Lem. ex Andrews, Fl. Pl. Anglo-Egypt. Sudan 2: 117. 1952.
Senna italica Mill. Gard. Dict. ed 8. no. 2. 1768.
Cassia senna Burm. f. Fl. Ind. t. 33. f. 2. 1768 non Linn. 1753).
C. aschrek Forsk. Fl. Aegypt.—Arab. 86. 1775.
C. obtusa Roxb. Hort. Beng. 31. 1814 nom. nud.
C. obovata Collad. Hist. Cass. 92. t. 15 A. 1816 nom. illegit.
C. obtusata Heyne in Arzneyk. Gewachse 9: t. 43. 1825.
Senna obtusa Roxb. Fl. Ind. 2: 344. 1832.
Cassia obovata var. *genuina* Bischoff in Bot. Zeit. 8: 882. 1850.
C. obovata var. *obtusata* (Heyne) Bischoff in Bot. Zeit. 8: 883. 1850.
Senna obovata (Collad.) Batka var. *genuina* Batka in Monogr. Cassien Gruppe Senna 46. 1866.
S. obovata (Collad.) Batka var. *pilosa* Batka in Monogr. Cassien. Gruppe Senna 33, 49. 1866.

Distribution: West T. Africa, North Africa, Ethiopia, Sudan, Nigeria, Israel, Egypt, Iran, Arabia, Pakistan and India.

2. **Cassia obtusifolia** Linn. Su. Pl. 1: 377. 1753.
AND
C. tora Linn. Sp. Pl. 1: 376. 1753.

C. obtusifolia L. resembles closely *C. tora* Linn. and hence, in most of our Indian floras and herbaria, they have been mixed up. Bentham (1871) treated the former under *C. tora* Linn. and this concept was followed by many other workers like Fawcett & Rendle, 1910-36; Baker 1878; Maheshwari, 1963. Prain (1897) separated *C. obtusifolia* L. and *C. tora* L. on the basis of one and two glands respectively on the rachis between one or two lowest pairs of leaflets. The same concept was followed by de Wit (1955). Recently, Brenan (1958) pointed out that some African and American specimens of *C. obtusifolia* Linn. have two glands on the rachis and this may

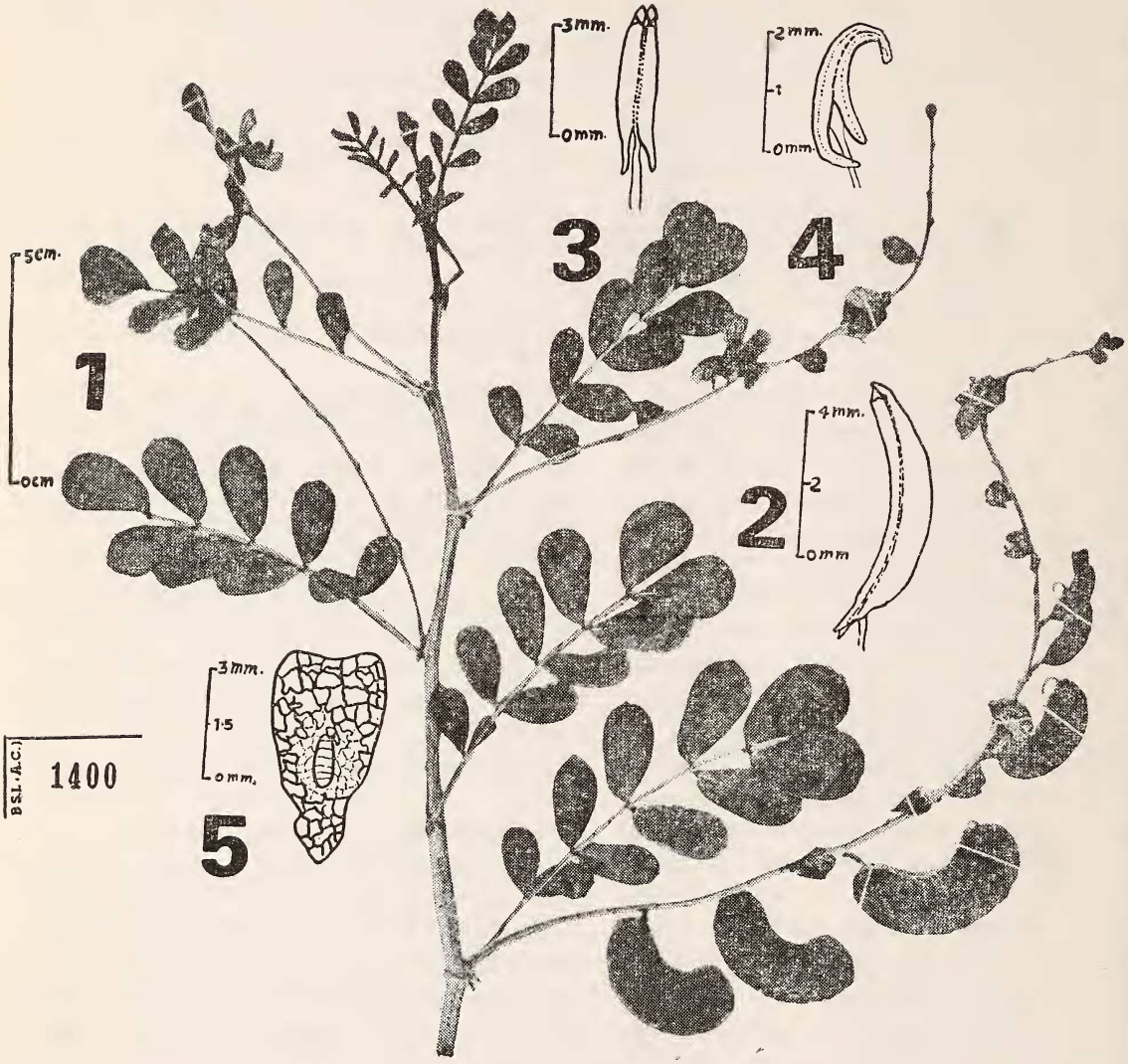

Fig. 1. *Cassia italica* (Mill.) Lem. ex Andrews—1. Flowering and fruiting twig; 2. Large anther; 3. Small anther; 4. Staminodes; 5. Seed.

lead to confusion. He mentioned two more characters based on the shape of large anthers and size of seed-areole to distinguish these two species. A close examination of Indian material reveals that the gland-character is not constant. Both the species may have one or two glands and resemble very closely in most of the morphological characters. However, the following characters, not given due consideration by the earlier workers, are of much taxonomic value to recognize the existence of the two species in India.

Three longer anthers distinctly necked at the apex and rest four rounded. Seed-areole slit-like, narrow, not more than 1 mm wide, never extending upto hilum. Testa slightly muricated, not distinctly veined (Fig. A_3, A_4) ..... *C. obtusifolia*

All the seven anthers rounded at the apex. Seed-areole broad, 1.5-2 mm wide, always extending upto hilum. Testa not muricated, but distinctly veined. (Fig. A_1, A_2) ..... *C. tora*

The synonymy and distribution of the taxa are as follows:

A. Cassia obtusifolia Linn. Sp. Pl. 1: 377. 1753.
C. toroides Roxb. Hort. Beng. 31. 1814 nom. nud.
Senna toroides Roxb. Fl. Ind. 2: 341. 1832.
Cassia tora Linn. var. B. Wt. & Arn. Prod. Fl. Pen. Ind. Or. 291. 1834.
C. tora sensu Baker in Hook. f. Fl. Brit. Ind. 2: 263. 1878 in part (non Linn. 1753).
C. tora L. var. *obtusifolia* (L.) Haines, Bot. Bihar & Orissa 304. 1922.

Distribution: Native of America; distributed in tropical regions of the world except Polynesia and Australia.

B. Cassia tora Linn. Sp. Pl. 1: 376. 1753.
C. sunsub Forsk. Fl. Aegypt.—Arab. 86. 1775.
C. tala Desv. in Journ. Bot. 3: 73, t. 73. 1814.
C. gallinaria Collad. Hist. Cass. 96. 1816.
C. humilis Collad. Hist. Cass. 96. 1816.
Senna tora (L.) Roxb. Fl. Ind. 2: 340. 1832.
Cassia regeonii Ghesq. in Rev. Bot. Appliq. 14: 238. 1934.

Distribution: Native of America; distributed in Africa, Arabia, Pakistan, India and eastwards to Polynesia.

3. **Cassia javanica** Linn. Sp. Pl. 1: 379. 1753.
AND
C. nodosa Buch.-Ham. ex Roxb. Fl. Ind. 2: 334. 1832.

These two species resemble closely in flower and fruit characters. Baker (1878) suggested that the former may be reduced to a variety of *C. nodosa* Buch.-Ham. ex Roxb. This concept, however, has not been followed by recent workers like de Wit (1955), Ali & Quraishi (1967). They have failed to find out some more constant characters of taxonomic value. Ali & Quraishi (1967) have separated the two species merely on basis of the size of leaflets, i.e. leaflets 6 cm long and acute in *C. nodosa* Buch.-Ham. ex Roxb. and less than 6 cm long in *C. javanica* Linn. The present study shows that, undoubtedly, these taxa are quite distinct and can be separated by the following characters:

Leaves upto 15 cm long; rachis not terete; leaflets not more than 10 pairs, not exceeding 2.5 × 1.3 cm; basal lobe of the stipules acute, much produced downwards; upper lobe acuminate, never aristate. Flowers long pedicelled (pedicel upto 2 cm long), in racemes, borne on the entire length of mother axis. Connective of the dorsifixed anthers produced into a mucro at the apex; anther-lobes rather distinct (Fig. A_5, A_8) ..... *C. javanica*

Leaves always more than 18 cm long; rachis terete; leaflets more than 12 pairs, always exceeding 2.5 × 1.3 cm, often retuse or emarginate. Flowers short pedicelled (pedicel not exceeding 1.5 cm in length), in corymbs, borne at the distal end of mother-axis. Connective of dorsifixed anthers not produced into a mucro; anther-lobes not so distinct. (Fig. A_6, A_9) ..... *C. nodosa*

The synonymy and distribution of the taxa are as follows:

A. Cassia javanica Linn. Sp. Pl. 1: 379. 1753.
C. bacillus Gaertn. Sem. 2: 313. 1791; Roxb. Fl. Ind. 2: 338. 1832.

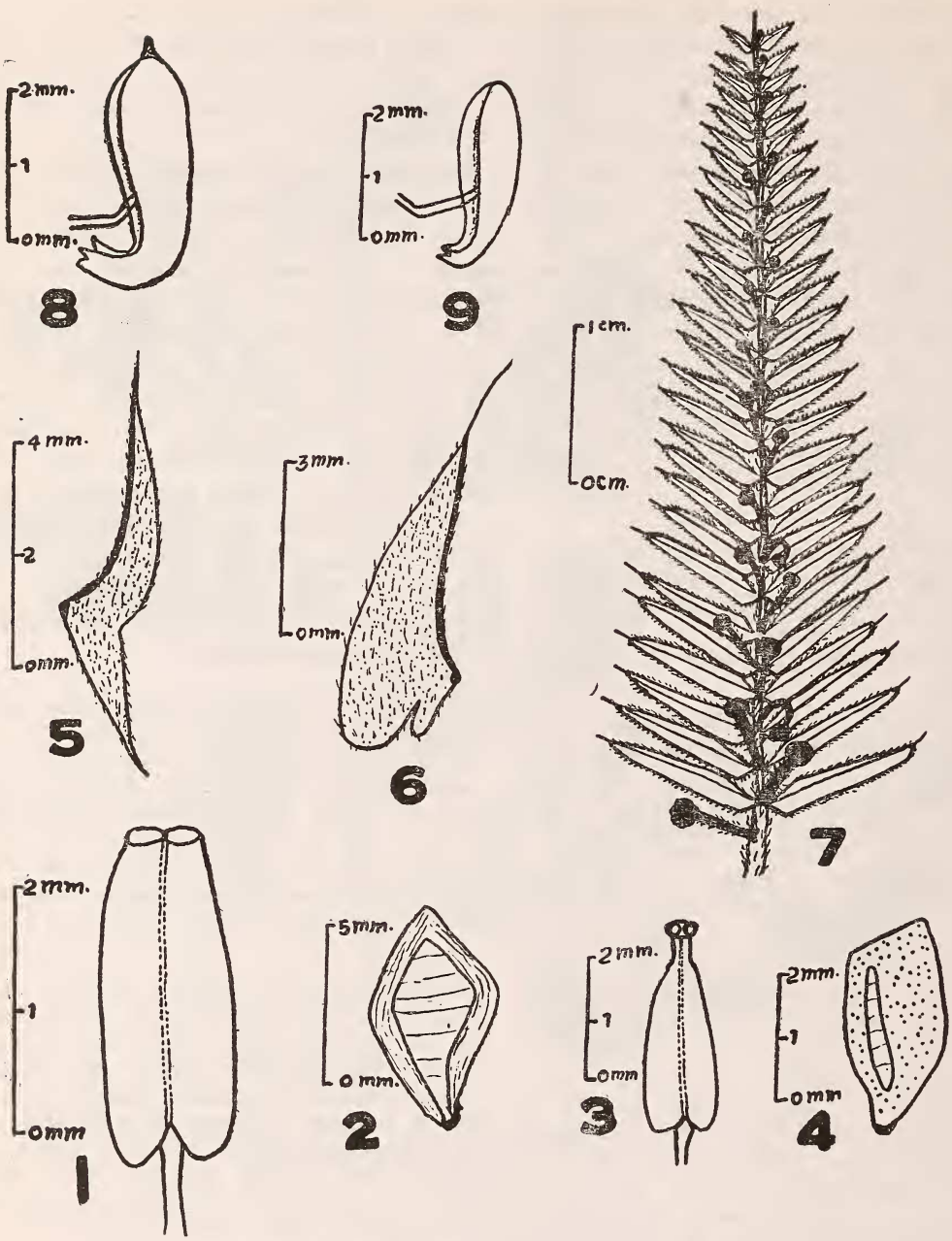

Fig. 2. *Cassia tora* Linn. — 1. Large anther, 2. Seed; *C. obtusifolia* Linn. — 3. Large anther, 4. Seed; *C. javanica* Linn. — 5. Stipule, 8. Dorsifixed anther; *C. nodosa* Buch.-Ham. ex Roxb. — 6. Stipule, 9. Dorsifixed anther; *C. pumila* Lamk. — 7. Leaf.

Distribution: Native of Sumatra and Java, also occurs in eastern India. Planted in gardens and road-sides in many countries.

B. C. NODOSA Buch.-Ham. ex Roxb. Fl. Ind. 2: 334. 1832.

Distribution: Eastern Himalaya to Borneo. Cultivated in the gardens of many countries.

4. **Cassia mimosoides** Linn. Sp. Pl. 1: 379. 1753 and its varieties.

Baker (1878) distinguished three varieties under *C. mimosoides* Linn. namely *dimidiata* (Ham. ex Roxb.) Baker, *wallichiana* (DC.) Baker and *auricoma* (Grah. ex Benth.) Baker. He considered *C. leschenaultiana* DC. as a synonym of his var. *wallichiana*. Prain (1897) pointed out that var. *wallichiana* (DC.) Baker consists of two distinct elements, one is var. *wallichiana* (DC.) sensu Baker and other is *C. leschenaultiana* DC. and advocated the separation of the latter as a species, distinct from var. *wallichiana* (DC.) Baker. More recently, Ghesque (1932) described a species *C. hochstetteri* Ghesq., which is the same as var. *dimidiata* (Ham. ex Roxb.) Baker [based on *Senna dimidiata* Ham. ex Roxb. (1832), non D. Don, 1825]. Steyaert (1950) raised var. *wallichiana* (DC.) Baker and var. *auricoma* (Grah. ex Benth.) Baker to the rank of species, i.e. *C. wallichiana* DC. and *C. auricoma* (Grah. ex Benth.) Steyaert. Again, de Wit (1955) reduced *C. auricoma* (Grah. ex Benth.) Stey. to the varietal rank and transferred it to *C. leschenaultiana* DC. instead to *C. mimosoides* Linn. Ali & Quraishi (1967) further transferred *C. auriconia* (Grah. ex Benth.) Stey. as a variety of *C. wallichiana* DC., as it is more related to it. Ohashi (1975) considered *C. wallichiana* DC. as conspecific with *C. mimosoides* L. and *C. leschenaultiana* DC. as a subspecies of latter, and *C. auricoma* (Grah. ex Benth.) Stey. as a variety under *C. mimosoides* L. subsp. *leschenaultiana* (DC.) Ohashi. The study of Indian material of the *C. mimosoides* group reveals that the treatment given by Ali & Quraishi (1967) is more satisfactory and should be followed.

The most suitable key to classify the variable elements of *C. mimosoides* group is as follows:

1. Stamens 5 or 4 ..... *C. hochstetteri*
1. Stamens 7 to 10:
   2. Rachis serrate. Leaves 8-10 cm long; leaflets 40-60 pairs. Pods 2.5-5 cm long, 18 to 25 - seeded ..... *C. mimosoides*
   2. Rachis entire, not serrate. Leaves 2.5-5 cm long; leaflets 16-24 pairs. Pods 1-2 cm long, 8 to 16-seeded:
      3. Fertile stamens 10. Plants hairy:
         4. Hairs on the stem and branches appressed, not spreading .... *C. wallichiana* var. *wallichiana*
         4. Hairs on the stem and branches spreading, not appressed .... *C. wallichiana* var. *auricoma*
      3. Fertile stamens 7, 9 or very rarely 10. Plants glabrous or glaucous .... *C. leschenaultiana*

The synonymy and distribution of these taxa are as follows:

A. C. HOCHSTETTERI Ghesq. in Bull. Jard. Bot. Brux. 9: 155. 1932.

C. nictitans Hochst. ex Oliv. Fl. Trop. Afr. 2: 28. 1871 (non Linn. 1753).

C. dimidiata Roxb. Hort. Beng. 32. 1814 (nac Ham. ex D. Don, 1825).

Senna dimidiata Ham. ex Roxb. Fl. Ind. 2: 352. 1832 (non *C. dimidiata* Ham. ex D. Don, 1825).

C. mimosoides Linn. var. *dimidiata* (Ham. ex Roxb.) Baker in Hook. f. Fl. Brit. Ind. 2: 266. 1878.

C. sparsa Stey. in Bull. Jard. Bot. Brux. 21: 359. 1951 pro parte.

Distribution: Pakistan, India, Ethiopia, China and Japan.

B. C. MIMOSOIDES Linn. Sp. Pl. 1: 379. 1753.

C. sensitiva Roxb. Hort. Beng. 32. 1814 nom. nud.

C. tenella Roxb. Hort. Beng. 32. 1814 nom. nud.

C. roxburghiana Grah. in Wall. Cat. 5323. 1831-32.
C. amoena Ham. in Wall. Cat. 5321. 1931-32.
Senna sensitiva Roxb. Fl. Ind. 2: 353. 1832.
S. tenella Roxb. Fl. Ind. 2: 354. 1832.

Distribution: India, Sri Lanka and Malaysian peninsula.

C. C. WALLICHIANA DC. Mem. Soc. Phys. Hist. Nat. Geneve 2(2): 133. 1824. var. WALLICHIANA.
C. dimidiata Ham. ex D. Don, Prodr. Fl. Nep. 247. 1825.
C. mimosoides Linn. var. *wallichiana* (DC.) sensu Baker in Hook. f. Fl. Brit. Ind. 2: 266. 1878 (in part, i.e. excl. *C. leschenaultiana* DC.).

Distribution: Pakistan, India, Bhutan and Nepal.

D. C. WALLICHIANA DC. var. AURICOMA (Grah. ex Benth.) Ali in Sind Univ. Sci. Res. Journ. 3: 10. 1967.
C. mimosoides Linn. var. *auricoma* Grah. ex Benth. in Trans. Linn. Soc. 27: 580. 1871.
C. auricoma (Grah. ex Benth.) Stey. in Bull. Jard. Bot. Brux. 20: 246. 1950.
C. leschenaultiana DC. var. *auricoma* (Grah. ex Benth.) de Wit in Webbia 11: 282. 1955.

Distribution: Pakistan, India Sri Lanka & Nepal.

E. C. LESCHENAULTIANA DC. Mem. Soc. Phys. Hist. Nat. Geneve 2: 132. 1824.
C. mimosoides Linn. var. *wallichiana* (DC.) sensu Baker in Hook. f. Fl. Brit. Ind. 2: 266. 1878 (in part, i.e. excl. *C. wallichiana* DC.).

Distribution: India, Sri Lanka and Malaysian peninsula.

5. **Cassia surattensis** Burm. f. Fl. Ind. 97. 1768.

AND

C. suffruticosa Keon. ex Roth, Nov. Pl. Sp. 213. 1821.

It would have been unnecessary to discuss the nomenclatural problem of *C. glauca* Lamk. and *C. surattensis* Burm. f., as there is unanimity of opinion regarding the validity of the published name *C. surattensis* Burm. f. for *C. glauca* Lamk. But. unfortunately, a distinct taxon named *C. suffruticosa* Koen. ex Roth has been wrongly interpreted as conspecific with *C. surattensis* Burm. f. (Bentham, 1871; Ali & Quraishi, 1967 etc.) or as its variety (Baker 1878; Chatterjee 1960 etc.). Britton (1930) placed this plant under his newly created genus *Psilorhegma* and named it *P. suffruticosa* (Koen. ex Roth) Britton. Fischer (Kew Bull. 1932: 56) examined Koening's specimens from India, now kept at Lund Herbarium, but did not find any specimen of *C. suffruticosa, C. glauca* or *C. surattensis*. A close examination of all available Indian material of *C. suffruticosa* Koen. ex Roth and *C. surattensis* Burm. f. reveals that these two taxa are quite distinct and clearly distinguishable on the basis of the following characters, which have not been given due consideration so far, and they should be considered as two distinct species rather than reducing *C. suffruticosa* Koen. ex Roth to the variety of *C. surattensis* Burm. f.

Leaflets 4-6 pairs, lanceolate or ovate-lanceolate, 4.5-7 × 2-3 cm; stipules ensiform, persistent. Petals subequal, 2-3 cm long. Bracts broadly ovate, acuminate, reflexed. Tip of anthers straight, not reflexed backwards. Pods 10-15 × 1-2 cm, 15 to 30-seeded. Seeds narrowly oblong, 6-7 × 2.5-3 mm; cotyledons slightly wrinkled; areole reticulately veined without transverse septa (Fi. B_1-B_5) .... *C. surattensis*

Leaflets 8-9 pairs, oblong or obovate-oblong, 2-4 × 1.3-2 cm; stipules linear-lanceolate, deciduous. Petals distinctly unequal, 1.5-2 cm long. Bracts narrowly ovate-lanceolate, not reflexed. Tip of anthers reflexed backwards. Pods 5-9 × 1-1.5 cm, 6 to 12-seeded. Seeds obovate, 4-5.5 × 1.5-2 mm; cotyledons not wrinked; areole longitudinally straited, with transverse septa (Fig. B_6 - B_{10}) .... *C. suffruticosa*

The synonymy and distribution of these taxa are as follows:

A. C. SURATTENSIS Burm. f. Fl. Ind. 97. 1768.
C. glauca Lamk. Encycl. 1: 647. 1785.
C. arborescens Vahl, Symb. Bot. 3: 56. 1794 (non Mill. 1768).

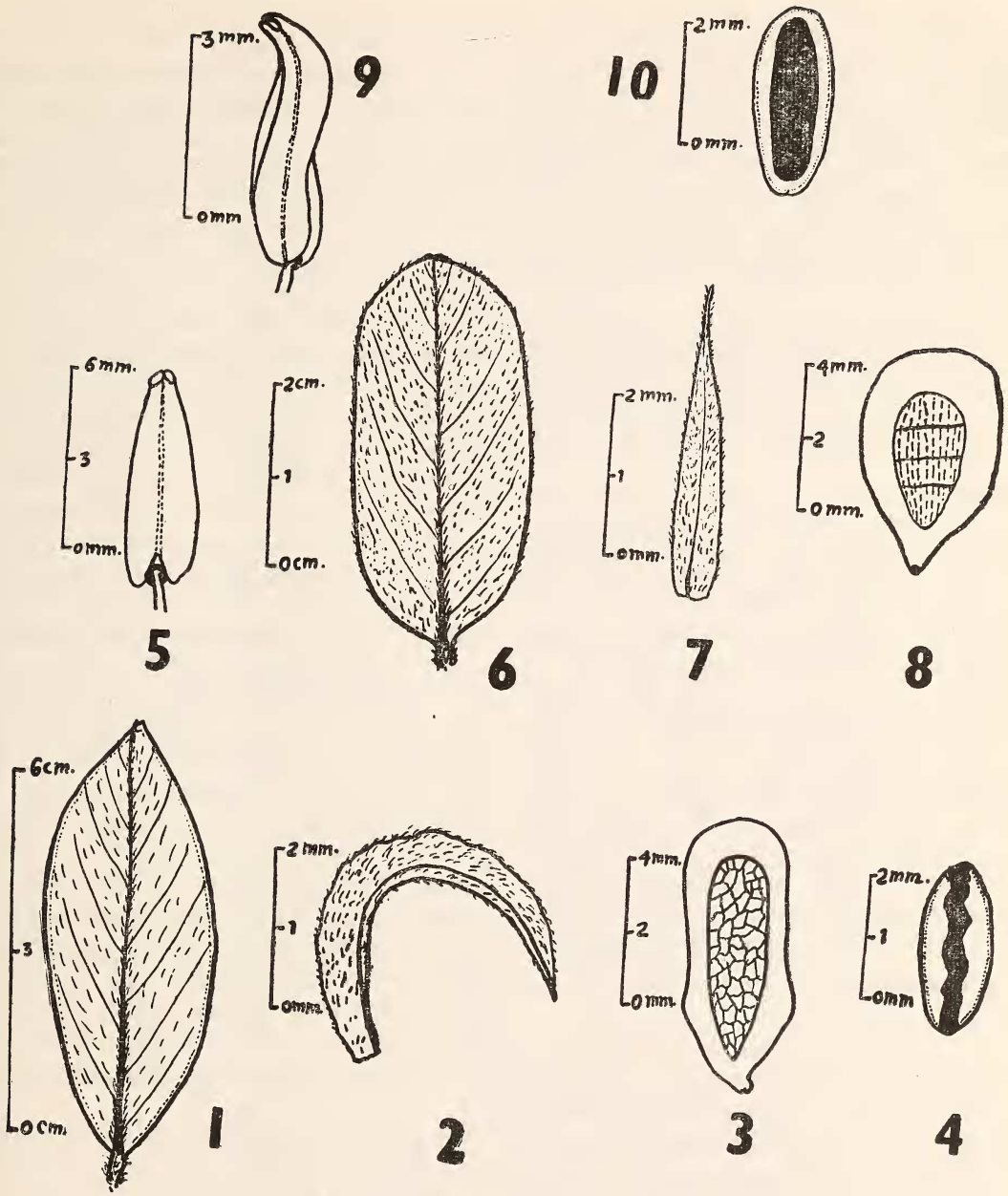

Fig. 3. *Cassia surattensis* Burm. f. — 1. Leaf (dorsal view), 2. Stipule, 3. Seed, 4. T.S. of Seed, 5. Anther; *C. suffruticosa* Koen. ex Roth — 6. Leaf (dorsal view), 1. Stipule, 8. Seed, 9. Anther, 10. T.S. of Seed.

C. discolor Desv. Journ. Bot. 3: 73. 1814.
C. sulphurea DC. Prodr. 2: 495. 1825.
Senna arborescens Roxb. Fl. Ind. 2: 345. 1832.

Distribution: Indigenous in S.E. Asia, Malay peninsula, Sumatra, Java, India, Burma, Sri Lanka, S. China, Formosa, Australia. Cultivated in many countries.

B. C. SUFFRUTICOSA Koen. ex Roth, Nov. Pl. Sp. 213. 1821; in DC. Prodr. 2: 496. 1825; W. & A. Prodr. 289. 1834; Benth. Pl. Austral. 2: 285. 1894.
Senna speciosa Roxb. Fl. Ind. 2: 347. 1832.
Cassia horsfieldii Miq. Fl. Ind. Bat. 1: 99. 1855.
Cassia acclinis F. Muell. Fragm. 4: 13. 1864.
C. glauca Lamk. var. *suffruticosa* (Koen. ex Roth) Baker in Hook. f. Fl. Brit. Ind. 2: 265. 1878.
Psilorhegma suffruticosa (Koen. ex Roth) Britton in North Am. Fl. 23: 255. 1930.
Cassia surattensis Burm. f. var. *suffruticosa* (Koen. ex Roth) Chatt. in Journ. Bomb. Nat. Hist. Soc. 57(3): 695-698. 1960.

Distribution: Malaya, Java, Burma, India, Australia and cultivated in many countries.

Further, *Cassia fastigiata* Vahl (Symb. Bot. 3: 57. 1794) excl. descr. 'glandulis inter omnia paria' probably belongs here as indicated by Wight & Arnott (Prodr. 290. 1834) and Prain (J. As. Soc. Beng. 66: 477. 1897). The varietal name *C. glauca* Lamk. var. *suffruticosa* (Koen. ex Roth) Baker has been wrongly ascribed to Prain in Gamble's FLORA OF MADRAS (403, 1919) instead of to Baker.

6. **Cassia pumila** Lamk. Encycl. Meth. 1: 651. 1785.

So far, typical *C. pumila* Lamk. is believed to possess upto 20 pairs of leaflets of maximum 13 × 2.5 mm size and a single stalked, peltate gland on the petiole below the lowest pair of leaflets. The specimen No. Shetty 1800, collected from Chang Chittar Forest Range (Pali), lodged in Central National Herbarium, Calcutta and Arid Zone Circle, Jodhpur and specimen No. Kanodia 1975, collected from Ramnagar (Pali) and lodged in the herbarium of Central Arid Zone Research Institute, Jodhpur, differ from proper *C. pumila* Lamk. in that they possess more than 20 pairs of leaflets (usually 28 pairs) of maximum 18 × 3.5 mm size and besides the solitary glands on the petioles, there are similar glands between each pair of leaflets in young leaves. The older leaves are without such glands between the pairs of leaflets. The stalks of rachis-glands are very weak and soon fall down, while those of petioles are stout and persistent. An examination of large material from different parts of the country reveals that there are many intermediate forms as regards the number and size of leaflets and the presence of glands between the leaflets is almost a universal feature of this taxon, but young leaves are to be examined because their stalks are very weak and soon fall down. Further, Deflers (1889) had recognised a variety *yemensis* Defl., endemic to Wasil, under *C. pumila* Lamk. (Blatter 1919-36). As the original material and description of variety *yemensis* Defl. are not yet available to me, it is not possible to comment upon it. But, in the light of present observation, an addition in the description of *C. pumila* Lamk. is necessary and it is presented below.

Plants erect, suberect or prostrate, upto 50 cm high or long. Leaves upto 8 cm long; leaflets upto 28 pairs, upto 18 × 3.5 mm. Solitary gland on the petiole and on the rachis between each pair of leaflets; former persistent; latter deciduous. Anthers unequal. Pods upto 4.5 cm long, straight or slightly falcate (Fig. A_7).

The synonymy and distribution of the taxon is as follows:

CASSIA PUMILA Lamk. Encycl. Meth. 1: 651. 1785.
C. prostrata Roxb. Hort. Beng. 32. 1814 nom. nud. (non Humb. & Boupl. ex Willd. 1809).
Senna prostrata Roxb. Fl. Ind. 2: 352. 1832.

Distribution: Africa, Arabia, Afghanistan, Pakistan, India, Malaya and Australia.

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